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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International Application No

/IT 03/00607

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B41J2/14 B41J2/145 B41J2/16 B41J2/155 B41J2/165

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B41J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 068 367 A (FABBRI FRANCO) 30 May 2000 (2000-05-30)	14,15
A	column 4, line 38 -column 5, line 23; figures 2,3	1-13,16, 20
A	EP 0 666 174 A (HEWLETT PACKARD CO) 9 August 1995 (1995-08-09) the whole document	1-13,16, 20
A	US 2002/008731 A1 (MATSUMOTO NOBUO ET AL) 24 January 2002 (2002-01-24) page 3, paragraph 48 -page 4, paragraph 59; figures 1,2	1-13,16, 20
A	EP 0 677 387 A (CANON KK) 18 October 1995 (1995-10-18) the whole document	1-13,16, 20
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the International search

14 September 2004

Date of mailing of the International search report

22 11. 2004

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## INTERNATIONAL SEARCH REPORT

International Application No

IT 03/00607

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 816 085 A (CANON KK) 7 January 1998 (1998-01-07) page 5, column 8 -page 10, column 29; figures 1,3,12,15 ---	14,15
A	US 5 896 146 A (FUKUI HIROSHI ET AL) 20 April 1999 (1999-04-20) the whole document ---	14,15
X	US 6 137 506 A (SUEOKA MANABU) 24 October 2000 (2000-10-24) column 5, line 33 -column 6, line 41; figures 6,7 ---	17-19
X	US 6 155 669 A (DONAHUE FREDERICK A ET AL) 5 December 2000 (2000-12-05) column 3, line 42 -column 4, line 52; figure 1 -----	17-19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IT 03/00607

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-13, 16, 20

An ink jet printing device/a manufacturing process for producing an ink jet printing device wherein a base plate with an ink feeding duct is provided. The ejection modules are mounted on the plate in hydraulic connection with the feeding duct. The feeding duct goes through the thickness of the plate. Hydraulic tight means are provided for sealing the connection between the modules and the ink duct.

2. Claims: 14, 15

An ink jet printing device comprising a cartridge/s of ink which are removably connected to the ejection modules, the ejection modules being capable of a relative alternating motion in relation to the print medium for a printing resolution greater than the physical resolution of the pitch between the nozzles.

3. Claim : 17

A printer wherein one or more plugs are provided, capable of movement for sealing the nozzles of the head/s when printing is concluded.

4. Claims: 18,19

A printer comprising a bin for a series of paper cards and a skimming and feeding mechanism for skimming the paper cards from the bin and bringing them to a working configuration for the head/s.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

/IT 03/00607

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6068367	A	30-05-2000	IT	T0930852 A1		10-05-1995
			DE	69417990 D1		27-05-1999
			DE	69417990 T2		14-10-1999
			EP	0652107 A2		10-05-1995
			JP	3542389 B2		14-07-2004
			JP	7186386 A		25-07-1995
EP 0666174	A	09-08-1995	US	5565900 A		15-10-1996
			DE	69515537 D1		20-04-2000
			DE	69515537 T2		14-12-2000
			EP	0666174 A2		09-08-1995
			JP	3459129 B2		20-10-2003
			JP	7251505 A		03-10-1995
US 2002008731	A1	24-01-2002	JP	2002096462 A		02-04-2002
EP 0677387	A	18-10-1995	JP	3268937 B2		25-03-2002
			JP	7276643 A		24-10-1995
			DE	69524659 D1		31-01-2002
			DE	69524659 T2		08-08-2002
			EP	0677387 A2		18-10-1995
			ES	2165399 T3		16-03-2002
			SG	34969 A1		01-02-1997
			US	5696544 A		09-12-1997
EP 0816085	A	07-01-1998	JP	3337912 B2		28-10-2002
			JP	10016226 A		20-01-1998
			DE	69724527 D1		09-10-2003
			DE	69724527 T2		01-07-2004
			EP	0816085 A2		07-01-1998
			US	6511145 B1		28-01-2003
US 5896146	A	20-04-1999	JP	8258292 A		08-10-1996
US 6137506	A	24-10-2000	JP	8058101 A		05-03-1996
US 6155669	A	05-12-2000	JP	11245383 A		14-09-1999